CAD SYSTEMS

DATACAD® 9 REVIEW

Easy Professional CADD

By Geoffrey Moore Langdon, AIA

DataCAD is a powerful and professional CADD software, strong enough for architectural firms to use as their primary design tool, yet easy enough for students and occasional designers to quickly draw or model buildings. Though there is a 2D drafting ability, where you can easily draw just about anything, the software is clearly oriented towards architects, builders, and others who need to do buildings. The software automatically draws and does 3D models of stairs, detailed windows, elevators, roofs, and countless other architectural elements - all easily modifiable to exactly what is needed. Builders love the automatic wood frame generator and cost analysis modules. Interior Designers love the libraries of photographed materials and the lights and shadows, which bring accurate life to the colorful renderings and animations in the visualization modules. Architectural detailers love the speed and accuracy possible with DataCAD's unique organization of symbols into template clusters allowing them to "build" details in seconds by popping in components rather than simply drafting lines. New users tend to be amazed by the huge extent of the support, user groups, and supplemental add-ons available for this solidly established design office software. DataCAD 9 is the latest update to a software which has been actively used by professional architects for over 15 years. It has evolved over the years, of course adding features and ease of use, not in radical jumps but rather incrementally so that existing users could easily make the transitions to new versions and feel comfortable. This ver-
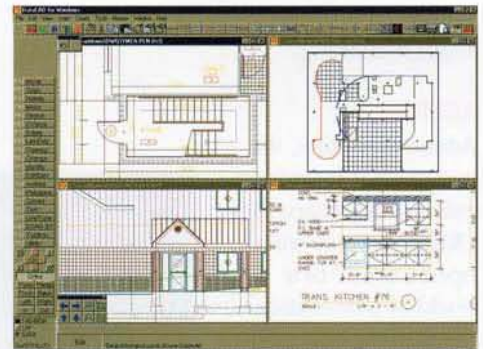

The Automatic 3D Framing Appeals to Builders.

sion again is a very easy transition for existing users, but it adds a huge number of features that have been on their wishlist for years - the top one being an unlimited undo feature. In the past I have seen firms reluctantly switch from DataCAD for three reasons - one, that AutoCAD® thing (i.e. the myth of compatibility), second, for collaboration tools like external reference files, and finally, for some people, to move to software that automatically generates elevations/sections from a single 3D model. The wizards at DATACAD LLC have now firmly addressed these three issues. DataCAD now has excellent file exchangeability with AutoCAD. The new external reference file feature (xrefs) will open new productivity possibilities for designers in both large and small offices to collaborate. There is now also a big sister program to DataCAD, called DataCAD Plus, which is indeed one of those automatic 3D parametric modeling programs, and the development strategy is to merge the features, thus making the transition for firms from 2D CADD drafting to 3D parametric modeling a particularly easy one.

3D Modeling and Rendering

The 3D modeling in DataCAD is not one that uses objects changeable through parametric dialog boxes as many other architectural CADD programs do, but instead takes the conceptually easier and faster approach of simply letting the user stretch and move 3D things from any 3D view. Though most people need just a little guidance to get started with the 3D portion of DataCAD, it is actually

Work on Several Drawings at Once.

one of the easiest and most robust 3D modeling programs in the industry, capable of modeling very elaborate buildings. There are several options for automatic color rendering, ranging from the instant QuickShader (which works with just one touch of a button), to the near-photorealistic Renderize®Live software included with DataCAD, to the dynamically moving virtual reality of the included Arcon® viewer. There is also a direct link to the DC Render visualization and animation program. Users of the stunningly realistic LightScape™ software find that DataCAD models tend to render faster and are easier to work with than models from AutoCAD, as there is less "triangulation".

2D Production

It is the wonderful 2D production drafting ability, though, which has made DataCAD a favorite over the years, with an "Architect" tool pallet of walls/windows/doors and so on right on the main screen. Most people start drawing floorplans the same day they receive the software (which is part of why you don't need to put "DataCAD Required" in your ads for personnel) but then learn even faster techniques, and the power of all those macros in the Toolbox which automatically draw all sorts of things, from interacting with existing users on the Internet or at user groups.

Recommended for Existing Users

Existing users of DataCAD will first notice the totally unlimited undo/redo ability, and most say their favorite new feature is the

multi-document ability to have several drawings open at once and copy/past between them. My advice to my consulting clients is that those two features, plus the ability to insert Word/Excel files with formatting, batch plotting and print preview, all make for an upgrade they should get immediately. Given that my usual advice with new versions of software is to wait, that should mean something.

XREFS

Added to all that, the new version introduces external reference files (XREFS) which will open a whole new world of possibilities, cheaptricks, and project collaboration not just for large architectural firms but even for sole practitionerships. DataCAD has always had a fabulous view layerset manager (called GoToView) which makes it one of the fastest and easiest programs in the industry to switch between related drawings - an extremely important productivity tool. Between this feature, and the ability to save individual or clusters of layers to other drawings very easily, much of what people use XREFS for in other programs which don't have such features (such as the old AutoCAD and MicroStation®) such as keeping building floor stories coordinated, doing reflected ceiling plans, and dividing work between several people, were already a snap in DataCAD without needing XREFS. In fact the various DataCAD user groups are just now trying to come up with new XREFS usage ideas, as we have a new ability which, actually, wasn't really needed, except for PR reasons. The DataCAD users and the DataCAD creators, are extremely conscious of being number two (or whatever) to AutoCAD, and, like Avis to Hertz®, have always tried to point out how DataCAD is more appropriate for architects to use. The XREFS thing, particularly because it is so important to AutoCAD as there is no other way to do certain things, has been just hanging out there as a listed feature DataCAD lacked until now. For virtually every other feature, such as the PaperSpace layout feature of AutoCAD, there has been an even better equivalent in

DataCAD, such as their Multi-Scale Plotting layouts (MSP) linked with GoToViews and named sheets. What those experienced users will discover over time, are two features which in the long run will truly prove to be the most important and productive enhancements - Hyperlinks and the new built-in Adobe® Acrobat® PDF file generator.

Adobe Acrobat PDF File Generator

Adobe Acrobat PDF files are quickly becoming the standard for CADD files sent to plotting services as well as to clients for project previewing. The files are tiny and compressed, so they transfer easily over the Internet, and they retain lineweights, fonts, and perfect quality to zoom into details. The free viewers are now built into every Web browser with some allowing for redlining, so having the ability to directly save a project as a PDF is a very valuable new DataCAD feature. All you do is go to the plot preview (a nice new feature in itself) and save the file.

Hyperlinks

It is easy to select any entity, note, or symbol in a drawing, and then associate it with one of those GoToViews, where then Alt-clicking on that entity will jump to that view. It all sounds so ridiculously simple, and it is, but the ramifications, because of how versatile DataCAD's GoToView really is, are huge. It means that simply clicking on a section line can jump you to that particular section drawing, click on an eve and it pulls up that detail, click on a note and the schedule or specs will pop up, and this is just the beginning. Check out the AEC Tech News article where it describes how hyperlinks will eventually change the entire CADD industry.

Great for New Users

DataCAD has finally morphed completely into a full Windows® oriented program. A few features touted on the DataCAD web site, wonderful as they are to established DataCADers, would surprise new buyers that they are listed at all as they are expected Windows features - resizable dialog

boxes, copy/paste between applications, print preview, complete pull-down menus, browse and preview files. The unlimited undo/redo feature, though, will make it easier and faster for new users to learn the software as they will feel more free to experiment. A lot of new users of DataCAD initially get it is as a cheap alternative to use at home, and like the fact that it exchanges AutoCAD files easily and has a very similar full professional list of drawing and editing commands. They also start transferring the thousands of architectural symbols that come free with the software, and realize that with the macros they can create thousands more. When they get that far though, they frequently realize that they have, with DataCAD, a more powerful productive tool than their office may be using. That is usually when I get the call to help offices make the transition. They realize that the automatic wood framer, the cost estimator, the digital terrain modeler (DTM) for land forms, the great 3D modeler and included rendering software, and the Cheap Tricks Ware™ plethora of automatic macros which allow them to instantly pop in everything from Victorian stairs, to medical office equipment, all represent enormous productivity value for any building design office.

The companion Renderize Live Software for Rendering and Animation.

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